
Three New Species and a New Combination in the Asclepiadaceae from the Venezuelan Guayana

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ABSTRACT. In preparation of the Asclepiadaceae treatment for the *Flora of the Venezuela Guayana*, one new species of *Matelea*, *M. stergiosii*, and two new species of *Ditassa*, *D. ottohuberi* and *D. verticillata*, are herein described. A new combination is also made in *Ditassa*, *D. bolivarensis*.

Matelea stergiosii Morillo, sp. nov. TYPE: Venezuela. Estado Bolívar: moist forest on rocky slopes, near Campamento Auraima, Río Paragua, 6°22'30"N, 63°33'30"W, 330 m, May–June 1987, *Stergios 10450* (holotype, VEN; isotypes, MO, MY, NY, PORT). Figure 1.

Species haec *Matelea squiresii* (Rusby) Morillo proxima, sed recedit: foliis late ovato-ellipticis vel obovato-ellipticis, corolla 7.8–10 mm diametro, corollae lobis, 3–3.4 mm longis, 2.4–3.2 mm latis, intus breviter et dense puberulentis, gynostegio, 1.6–1.65 mm alto, 2.3–2.6 mm diametro (0.95–1.2 mm alto et 1.55–1.95 mm diametro in *M. squiresii*); antheris 1.4 mm latis; coronae segmentis basi 1.2–1.25 mm latis.

Twining vine; stems with short and inconspicuous pubescence in two rows; leaves opposite; petioles 0.5–1.3 cm long, puberulent, blades broadly ovate-elliptic to obovate-elliptic, 3–5.5 × 1.2–3.3 cm, apex usually ± abruptly acuminate, base obtuse to cuneate, glabrous except for a few hairs along the midvein above, 5 or 6 pairs of lateral veins, 4 nectaries at the base. Inflorescence subaxillary, 2- or 3-flowered; peduncle 1–2 mm long, bracts ovate, 0.6–0.7 mm long, ciliate along the margins; pedicels 2–2.5 mm long, glabrous. Calyx lobes ovate-elliptic, 1.8–2 × 1.1–1.3 mm, with few short, curved hairs outside and short cilia along the margins, the apex narrowly obtuse. Corolla rotate, 7.8–10 mm diam., the lobes 3–3.4 × 2.4–3.2 mm, apparently green and brown, densely short-appressed or erect-puberulent inside, with few short, curved hairs along a medial line outside, the apex obtuse. Gynostegium shortly stipitate, 1.6–1.65 mm long (tall) and 2.3–2.6 mm diam.; anthers horizontal, 1.3–1.4 mm wide. Pollinia horizontal, irregularly and narrowly ovate-truncate, 0.45 × 0.3 mm, caudicles 0.2–0.25 mm long, corpusculum narrowly sagittate, 0.2 × 0.1–0.12 mm. Corona formed by 5 column-shaped segments, which are basally expanded, the

basal part 1.2–1.25 mm wide, margin almost entire. Fruits unknown.

This species belongs to a difficult complex with *Matelea squiresii*, which is known from southern Venezuela and the Guianas (also probably in Brazil) from lowland moist forests. *Matelea stergiosii* differs clearly in the somewhat wider leaf blades, much wider corolla, and gynostegium and inner face of the corolla lobes with denser pubescence.

Ditassa ottohuberi Morillo, sp. nov. TYPE: Venezuela. Territorio Federal Amazonas: summit of Cerro Coro-Coro, NW headwaters of Río Manapiare, NW section of Serranía de Yutajé, 5°46'N, 66°12'W, 2,200 m, Nov. 1987, *Huber 12290* (holotype, VEN; isotypes, MO, MY, NY, RB, TFAV).

Species nostra *Ditassae acerifoliae* Lasser et Maguire affinis, sed differt: corolla subcampanulata, 1.9–2 mm diametro, lobis 1.3–1.4 × 0.8–0.9 mm; gynostegio breviter stipitato 0.6–0.65 mm longo; antherae alis 0.26–0.32 mm longis, corona exteriori segmentis oblongis vel anguste triangulari-oblongis, 0.65–0.75 × 0.2 mm, corona interiori segmentis 0.2 mm longis.

Erect suffruticose plant, 20–30 cm high; stems shortly branched, branches rugose, the lower part with conspicuous persistent petiole bases, internodes 0.5–1 mm long, minutely erect-puberulent. Leaves apparently disjunctly verticillate or subspirally arranged, erect, up to 8 per whorl; petioles 0.6–1.8 mm long, decurrent, glabrous; blades fleshy, ± linear, roundly triquetrous in cross section, 0.8–1 × 0.05–0.07 cm, the apex mucronate, the base gradually cuneate, the surface glabrous, veins and nectaries not evident. Inflorescences axillary or interpetiolar, cymose, 1–3-flowered; peduncles 0.6–1.6 mm long, glabrous, bracts and bracteoles narrowly ovate, 0.6–1 mm long, glabrous; pedicels 2.5–2.6 mm long, glabrous. Calyx lobes narrowly ovate, 1.1–1.5 × 0.45–0.55 mm, obtuse. Corolla subcampanulate, 1.9–2 mm diam., the tube 0.5–0.6 mm long, glabrous, the lobes obliquely ovate, somewhat concave, suberect in anthesis, 1.3–1.4 × 0.8–0.9 mm, glabrous outside, puberulent-papillose inside, the apex narrowly obtuse. Gynostegium shortly stipitate, 0.6–

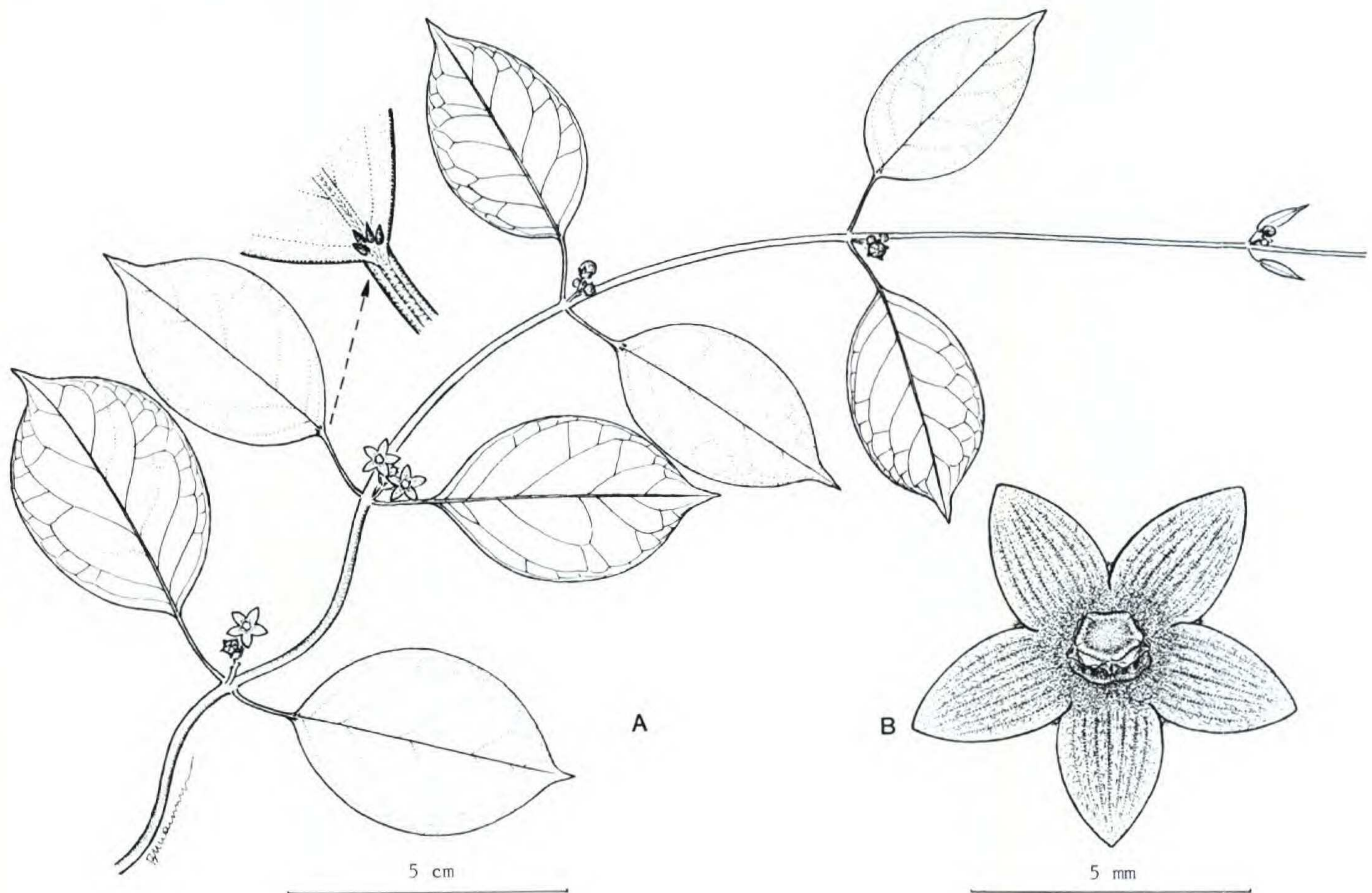


Figure 1. *Matelea stergiosii*. —A. Habit, with detail of glands at base of leaf blade. —B. Detail of flower.

0.65 mm long (tall), 0.7–0.8 mm diam., stipe 0.1–0.15 mm long; anther wings 0.26–0.32 mm long. Pollinia pendulous, narrowly ovate, 0.25–0.26 × 0.06 mm, caudicles curved, 0.05 mm long, corpusculum oblong-obovoid, 0.4 × 0.06 mm. Corona double, outer segments narrowly triangular, 0.7–0.75 mm long × 0.2 mm wide at base, slightly longer than gynostegium, united by a short ring of tissue, inner segments scalelike, irregularly ovate, 0.2 mm long. Fruits erect, narrowly ovate-fusiform, 2.9–3.2 × 0.3–0.4 cm, long-attenuate, glabrous, with persistent calyx; seeds oblong ovate, 4–4.5 × 1.2–1.5 mm, brown-orange, margins entire, coma ca. 20 mm long.

The general aspect of this plant is nearly identical to that of *Ditassa acerifolia* Lasser & Maguire, a species endemic to Cerro Yaví, but the new species differs by the characters included in the diagnosis. These two related species of *Ditassa* are distinguished from the other Guayanan and Guianan species of the genus in possessing erect, woody stems and dense acicular, spirally arranged leaves.

Ditassa verticillata Morillo, sp. nov. TYPE: Venezuela. Territorio Federal Amazonas: Serranía Yutajé, Cerro Yutajé, occasional on rocky slopes, middle section of main branch, lefthand

fork of Caño Yutajé, 1,300–1,400 m, Feb. 1953, *Maguire & Maguire 35243* (holotype, VEN; isotype, NY).

Species nostra *Ditassae taxifoliae* Decne. proxima sed notabilis: foliis verticillatis, coronae interioris lobis linear-oblongis, 0.9–0.95 mm longis; corollae lobis intus basi pilis erectis instructis.

Suffruticose plant, stems mostly erect, sometimes slightly twining, 30–55 cm long, shortly and densely puberulent throughout. Leaves 3- or 4-verticillate, rarely opposite in the upper nodes; petioles 0.2–0.3 cm long, with few hairs at the apex and margins; blades linear, 1.5–2.1 × 0.1–0.3 cm, coriaceous, the apex acute to mucronate, the base shortly cuneate, midvein prominent below, secondary veins not evident, surface glabrous throughout, margins slightly to strongly revolute; nectaries absent. Inflorescence subaxillary cymes, 1- or 2-flowered; peduncle 0.7–1.1 mm long, thick and rugose, rachis bracteate, 0.1–2 mm long, bracts ovate to deltoid, 0.5–0.7 mm long, pedicels 1.7–2 mm long, glabrous. Calyx lobes ovate, 0.9–1.1 × 0.7–0.8 mm, obtuse, glabrous, eciliate. Corolla campanulate, the tube 0.8–0.9 mm long, glabrous, the lobes ovate, 1.7–1.8 × 1.2–1.3 mm, glabrous outside, with short, appressed hairs in the upper 2/3 and short, erect hairs in the lower 1/3 inside, the apex narrowly

obtuse. Gynostegium sessile, 1.1–1.2 mm long (tall), 0.9–1 mm diam., anther wings 0.8 mm long. Pollinia narrowly ovoid-ellipsoid, 0.3×0.09 –0.1 mm, caudicles 0.09 mm long, corpusculum narrowly elliptic or narrowly ovate, 0.23×0.09 mm. Corona double, outer segments rhombic-ovate and long-acuminate, 1.75 mm long, 0.7 mm wide at base, united with each other in the lower 0.3 mm, inner segments linear to oblong, 0.9–0.95 mm long, curved above the anthers. Fruits unknown.

Ditassa verticillata is closely related to *D. taxifolia*, with which it was originally confused, but

differs in the mostly 3- or 4-verticillate leaves, peduncles to 1.1 mm long, corolla lobes with erect trichomes in the lower, inner half, and internal segments of corona linear-oblong and longer than the anther membranes.

Ditassa bolivarensis (R. Holm) Morillo, comb. nov. *Cynanchum bolivarense* R. Holm, *Fieldiana, Bot.* 28: 504. 1953. TYPE: Venezuela. Bolívar: in woods bordering streams draining into Río Kukenán, base of Mount Roraima, 1,185–1,280 m, *Steyermark 58555* (holotype, F; isotype, VEN).